

In the Specification

Please amend the paragraph that begins on page 10, line 7 as follows:

In particular, the vertical synchronization interval is a portion of an NTSC standard television signal that has a predictable signal pattern which is repeated twice per frame in the television signal, or sixty times per second. ~~Fig. 1A shows a timing diagram of an exemplary vertical synchronization interval.~~ All of the vertical synchronization intervals of a television signal have substantially the same signal pattern, and occur at the same point of each video frame within the signal. In other words, the vertical synchronization signal occurs at regularly occurring intervals. In the present embodiment, the select portion of the television signal corresponds to either, but not both, of the vertical synchronization intervals in each television signal frame. The use of only one of the vertical synchronization intervals allows twice as much time for processing the select portion of the signal as would be available if both vertical synchronization intervals were used. Those of ordinary skill in the art may readily employ faster processing devices or other modifications that would make the use of both vertical synchronization intervals advantageous.

Please amend the paragraph that begins on page 31, line 13 as follows:

To this end, the signal BASEBAND is first provided by the input 301. The input 301 provides the signal BASEBAND to each of the information signal estimator 304 and the adder [[306]] 305 through a synchronizer 302. The synchronizer 302 operates to align the information signal within the digital signal segment such that the start of the

vertical synchronization interval coincides with a particular sample in the digital signal segment.

Please amend the paragraph that begins on page 32, line 9 as follows:

In any event, the synchronizer 302 provides the time synchronized signal BASEBAND to the information signal estimator 304 and the adder [[306]] 305. The information signal estimator 304 then generates an estimate of the signal VIDEO using an average of a plurality of previous digital signal sequences, for example, the last N digital signal sequences. To this end, the information signal estimator 304 stores and averages a number of input digital signal sequences,  $\frac{1}{2}(\text{VIDEO} + \text{NOISE}')$ , over time. Each sequence comprises a plurality of samples that preferably correspond to the entire digital signal segment. As discussed above in connection with the operation of the A/D converter 14 of Fig. 1, the digital signal segment is selected such that the information signal is a predictable repetitive waveform, such as the vertical synchronization interval of an NTSC video signal. The use of a repetitive waveform facilitates the estimation of the information signal. Because the content of the signal VIDEO is a known and repeating waveform, the VIDEO term should always be the same value. It has been observed that the average of the NOISE' component over several sequences is substantially zero, or at least sufficiently small enough that it does not compromise the accuracy of measurements. Thus the average of the plurality of digital signal sequences is equal to the VIDEO term without the NOISE term. The information signal estimator 304 then provides the average quantity, and more specifically, the inverted average quantity,  $-\frac{1}{2}\text{VIDEO}$ , to the adder [[306]] 305.

Please amend the paragraph that begins on page 33, line 3 as follows:

The adder [[306]] 305 thus receives the combined noise and video baseband signal, BASEBAND, and the inverted average quantity  $-\frac{1}{2}\text{VIDEO}$ , and adds the signals, thereby producing a resultant signal  $\frac{1}{2}\text{NOISE}'$ . The adder [[306]] 305 provides the signal  $\frac{1}{2}\text{NOISE}'[[;]]$  to the output 308. The output 308 provides the signal  $\frac{1}{2}\text{NOISE}'$  to a noise processor, such as the noise processor 22 of Fig. 1. The signal  $\frac{1}{2}\text{NOISE}'$  may suitable be adjusted by a scalar quantity either in the noise processor 22 or otherwise to obtain the value NOISE'.

Please amend the paragraph that begins on page 34, line 7 as follows:

However, in one embodiment using quiet lines, several quiet lines of each NTS video frame may be sampled by the A/D converter 14, demodulated, and provided to the information signal extractor 20. In such an embodiment, the same method for isolating the signal NOISE' as described above may be used. In other words, the information signal estimator 304 would receive and average N groups of M quiet lines from N video frames to produce an estimate of the information signal. As discussed above, taking the average effectively removes the noise and generates a reliable estimate of the information signal. The signal estimate (scaled as necessary) may then be provided ~~to the adder 306 to the adder 305~~ to be subtracted from the signal BASEBAND.